

## **REMARKS/ARGUMENTS**

The Office Action of May 20, 2005 has been carefully reviewed and this response addresses the Examiner's concerns stated in the Office Action. All objections and rejections are respectfully traversed.

### **I. STATUS OF THE CLAIMS**

Claims 1, 3-20, and 22-46 are pending in the application.

Claims 2 and 21 were previously cancelled without prejudice.

Claims 1, 3, 5, 6, 10, 11, 15, 19, 20, 22, 23, 25, 29, 33, 35-37, 43, and 45 have been amended for consistency and to clarify the claimed invention. No new matter has been added. Annotations about support for the amendments can be found in the relevant portion of this response.

Claim 46 has been added. Support for claim 46 can be found in paragraphs 61-77 and FIG. 1B of Applicants' specification. No new matter has been added.

Claims 14, 23, and 33 are rejected under 35 U.S.C. § 112, second paragraph.

Claims 1, 3-18, 20, 30-31, 36-42, and 45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Treyz et al, United States Patent # 6,587,835, issued on July 1, 2003 (Treyz).

Claims 19, 22-29, 32-35, and 43-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Treyz.

Applicants still further respectfully point out that it appears that Examiner has not sent an initialed copy of the Information Disclosure Statement of August 19, 2002. Applicants respectfully again request the status of that document.

### **II. REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH**

On page 2, the Office Action states that the term “substantially” in claims 15, 23, and 33, is a relative term which renders the claim indefinite. The Office Action further states that the specification does not provide a standard for ascertaining the requisite degree of the term “substantially”. Although Applicants believe that it is clear from the context in the specification in paragraphs 89 and 91, and what is commonly known in the art, what is meant by the term “substantially” with respect to wavelength ranges, Applicants have amended claims 15, 23, and 33 to omit the term “substantially”.

### III. REJECTION UNDER 35 U.S.C. § 103(a)

On pages 3-8, in paragraph 2, the Office Action states that claims 1, 3-18, 20, 30-31, 36-42, and 45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Treyz.

In order for a rejection under 35 U.S.C. §103 to be sustained, the Office Action must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants’ disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Further, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Applicants assert that there is no suggestion or motivation in Treyz or Official Notice to perform the claimed subject matter of independent claim 1 (upon which dependent claims 3-18 depend) and dependent claims 20, 30-31, 36-42, and 45.

Applicants’ invention is patentably different from Treyz at least for the following reasons:

- (1) Applicants claim that the step of formatting advertising information including service information, data entry information, and contact information happens outside of the client device (amended claim 1).
- (2) Applicants claim the step of formatting advertising information from an advertisement into XML elements, where the advertising information includes service information, data entry information, and contact information. Applicants assert that, at the time of the filing of the provisional application upon which the present application relies, i.e. August 15, 2000, XML was in fact not common knowledge in the art, and clearly not common knowledge in the art of broadcasting unsolicited advertisements formatted into XML elements in a transmitter (amended claim 1).
- (3) Applicants claim the step of determining, in the client device, a response to the advertising signal, based on the unsolicited advertising information (amended claim 1).
- (4) Applicants claim the step of receiving a service response from the transmitter where the service response includes executable code for allowing the client device to interact with the service (claim 10).

Treyz, on the contrary, states in many places that a service provider and a handheld computing device perform various functions with respect to the user, and that the transmitter enables communication between the service provider and the handheld device (col. 2, lines 15-27), but nowhere does Treyz disclose that the transmitter does any other further processing, including formatting. Further, as the Office Action states, nowhere does Treyz disclose formatting by any source into XML elements.

Applicants further respectfully point out that Examiner's cited reference, Treyz, was issued on July 1, 2003, almost two years after the filing date of the present application, August 15, 2001. Treyz was filed on February 9, 2000, whereas Applicants' provisional patent application upon which the present application depends was filed on August 15, 2000.

Applicants respectfully reserve the right to file a petition under 37 C.F.R. § 1.131 to swear behind Treyz.

On pages 3-4 of the Office Action, with respect to claim 1,

(1) The Office Action states that Treyz teaches a method for distributing an advertisement for a service relevant to a location to a client device at the location comprising the step of formatting advertising information from the advertisement into elements (col. 35, lines 21-41 and FIG. 37: the Office Action states that Treyz discloses services may be displayed as icons on the hand held device).

Applicants have amended claim 1 to further define the invention. Support for the amendments can be found in paragraphs 18, 106, and 131, among others. Applicants respectfully point out that Treyz states, in the cited passage, that an illustrative screen 428 that may be provided by handheld computing device 12 when providing a shopping assistance service in a shopping mall environment is shown in FIG. 37. Treyz further states that the shopping assistance service may be invoked by selecting an icon that may be displayed by handheld computing device 12 when the user enters the mall.

Treyz does not disclose, in the cited passage, nor depict in the cited figure, formatting an advertisement into XML elements. The Office Action treats the terms “XML” and “element” as separable. Applicants respectfully point out that an “XML element” is defined to be a fully formed application that specifies how to handle the data contained within start- and end-tags. For example, the paragraph element <P> specifies that the text contained within the start-tag <P> and the end-tag </P> should be structured as a paragraph.

With respect to Applicants’ amendments, Treyz does not teach formatting, outside the client device, unsolicited advertising information. The client device of Treyz “provides” the screen depicted in FIG. 37, but nowhere does Treyz disclose how or what formats the screen. And further, Applicants’ claimed formatting the advertisement into XML elements involves constructing a message having the XML tags as illustrated above, whereas formatting a screen involves positioning, etc., information on a screen.

(2) On pages 3-4 and 7, with respect to claims 1 and 37, the Office Action states that Treyz teaches a method for distributing an advertisement for a service relevant to a location to a client device at the location comprising the step of formatting advertising information from the advertisement into elements including data entry information indicating purchasing options based on the purpose; and contact information containing instructions for enabling the client device to communicate with the service (col. 31, line 66 – col. 32, line 22, the Office Action states that Treyz discloses a data entry option to purchase a product).

Applicants respectfully point out that, in the cited passage, Treyz states that “[I]f the user selects option 342, handheld computing device 12 may display a screen” that “may contain information 348 on the desired item”. Treyz further states that “[A]n option such as an order now option 352 may be associated with each retailer. If the user selects one of these options, the handheld computing device 12 may display the retailer's on-line shopping portal to the user”.

Applicants claim, on the contrary, contact information containing instructions for enabling the client device to communicate with the service. For example, XML formatted contact information that is received by the client device can display a form based on the user's location, for example, that allows the user to place specific orders that are relevant to the user's personal and locational contexts. For example, if the user's flight is delayed, the user would be provided with a form that would allow the user to change flights. Treyz requires the user to link to the service provider's web site, and then proceed from there.

(3) The Office Action states that Treyz teaches a method for distributing an advertisement for a service relevant to a location to a client device at the location comprising the step of forming an advertising signal containing the advertising information; propagating the advertising signal from a transmitter to the client device within the location (col. 32, lines 23-25, the Office Action states that Treyz discloses the user can obtain advertisement product information when the user is in the vicinity of the store).

Applicants respectfully point out that Treyz states, in the cited passage, that the handheld computing device 12 may be used to obtain such product information from a local computer

associated with the store or from a remote computer (e.g., a remote server associated with the store, a manufacturer, or service provider, etc.) Treyz further states that a local wireless link (e.g., a local wireless link with the computer associated with the store or with a local access point in the vicinity of the store) may be used to provide the *requested* information wirelessly to handheld computing device 12. In other words, the user of Treyz must request the information that is later supplied by the store. Applicants, on the contrary, claim forming an *unsolicited* advertising signal containing the advertising information and propagating the advertising signal to the client device. Applicants have amended claims 1, 3, 5, 6, 19, 20, 22, 25, 35-37, and 45 to clarify this distinction. Support for the amendments can be found in paragraphs 50 and 55 of Applicants' specification.

(4) The Office Action states that Treyz teaches a method for distributing an advertisement for a service relevant to a location to a client device at the location comprising the steps of (a) receiving the advertising signal at the client device (the Office Action states that Treyz discloses advertisement displayed on handheld computing device screen), (b) decoding the advertising signal to extract said advertising information (the Office Action states that Treyz discloses the user is enabled to check the identities of the retailers and the prices of advertised items), and (c) displaying the advertising information to a user of the client device (the Office Action states that Treyz discloses advertisement information displayed on handheld device) (col. 31, line 66 – col. 32, line 22).

Applicants respectfully point out that Treyz states, in the cited passage, that the handheld computing device 12 may display a screen such as screen 346 of FIG. 28, and that the screen 346 may contain information 348 on the desired item as well as information 350 on the identities of various on-line retailers and the prices of the item at each such retailer. Treyz teaches away from Applicants' claimed decoding the advertising signal to extract the advertising information because Treyz states that the handheld computing device may display a screen such as screen 346 of FIG. 28 -- FIG. 28 contains a list of possible vendors and "directions" and "order now" buttons for each vendor – but nowhere does Treyz disclose Applicants' claimed step of decoding an advertising signal to extract (unsolicited) advertising information. The display of Treyz is a canned display with no decoding required in order to display it.

With respect to claims 1, 20, 30, and 36, the Office Action states that Treyz fails to explicitly teach the use of XML elements. The Office Action takes Office Notice that both the concept and advantages of using XML elements is well known in the art. Applicants respectfully point out that, “[O]fficial notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be "capable of such instant and unquestionable demonstration as to defy dispute" (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)). ” *MPEP* § 2144.03 A. Applicants herein respectfully traverse Examiner’s Official Notice.

Applicants respectfully request a reference that discloses the preparation and transmission of an unsolicited advertisement in the form of XML elements. If XML elements used in this way were common knowledge in the art at the time the present application was filed, and were capable of instant and unquestionable demonstration as being well-known at the priority date of the present application, it should be easily possible to provide such a reference.

On page 4, with respect to claim 3, the Office Action states that Treyz teaches the method of claim 1 further comprising the step of selecting the service based on the advertising information (col. 50, lines 19-37).

The shortcomings of Treyz with respect to claim 1 have been previously set out and will not be repeated here. Applicants respectfully point out that Treyz states that screen 766 may contain information 778 on items on the user's shopping list including logos 782, advertisements 784 and 786, and other interactive and promotional content. Treyz further states that logos may contain a graphic representation of a manufacturer's logo, a product or service logo, a brand logo, a store logo, or a logo of any other suitable entity. In other words, the advertisements of Treyz do not couple the handheld device to the service provider, but simply provide information.

Applicants have amended claim 3 to further define the invention. Support for the amendments can be found in Applicants' specification in paragraph 102, 103, 118, and 156. Nowhere does Treyz disclose Applicants claimed selecting the service based on the advertising information, communicatively coupling the client device with the service as a result of the step of selecting, and communicating the selection to the selected service, because the advertisements of Treyz simply provide information.

On page 4, with respect to claim 4, the Office Action states that Treyz teaches the method of claim 3 further comprising the step of constructing a user interface for allowing the user to communicate with the client device (col. 61, lines 41-51).

The shortcomings of Treyz with respect to claim 3 have been previously set out and will not be repeated here. Applicants respectfully point out that, in the cited passage, illustrative screen 1028 is displayed by audio kiosk 1000 on display 1012 is shown in FIG. 108. Display 1012 is associated with audio kiosk 1000, not handheld computing device 12. Treyz states elsewhere that audio kiosk can download audio files to handheld computing device 12, but screen 1028 is used to communicate with the provider of the audio files, not the user of handheld computing device 12.

Applicants claim, on the contrary, constructing a user interface for allowing the user to communicate with the client device (for example, a handheld computing device). The user interface can include screens that are displayed on the client device itself.

On page 5, with respect to claim 6, the Office Action states that Treyz teaches the method of claim 5 further comprising the step of formatting the user inputs and a portion of the advertising information into a user reply, the user reply for making the user inputs available to the service (col. 59, lines 46-67).

The shortcomings of claim 4, upon which claim 5, and thus claim 6, depend, have been set out previously and will not be repeated here. Applicants respectfully point out that Treyz states, in the cited passage, that information from a list, for example, may be displayed on the handheld device and transferred to the user's shopping list which may be displayed on handheld



computing device 12. Treyz further states that the user may create a shopping list based on a promotional video displayed on handheld computing device. Treyz simply discloses, in the cited passage, the creation of a shopping list.

Applicants, on the contrary, claim formatting the user inputs and a portion of the advertising information into a user reply, where the user reply can make the user inputs available to the service. Treyz does not disclose making the user inputs available to the service after the shopping list is created.

On page 5, with respect to claim 7, the Office Action states that Treyz teaches the method of claim 6 further wherein the user reply is received at the transmitter (col. 65, lines 11-33 and FIG. 115).

The shortcomings of claim 6, upon which claim 7 depends, have been set out previously and will not be repeated here. Applicants respectfully point out that Treyz states, in the cited passage, that the handheld computing device 12 can be used for to placing product orders for in-store pickup are shown in FIG. 115. Treyz also states that interactive promotional material may be displayed for the user. Applicants, on the contrary, claim that the user reply is received at the transmitter that has propagated the advertising signal to start with. The cited passage does not reference a transmitter, and does not disclose where the product orders are received, in particular, Treyz does not disclose that the product orders are received at the transmitter from which the advertising signal was propagated.

On page 5, with respect to claim 10, the Office Action states that Treyz teaches the method of claim 9 further comprising the step of receiving a service response from the transmitter, the service response including at least one member selected from the group consisting of a graphical representation of the service for display on the client device, executable code for allowing the client device to interact with the service, and text for display on the client device (col. 16, line 56 – col. 17, line 8).

The shortcomings of claim 7, upon which claims 8-10 depend, have been set out previously and will not be repeated here. Applicants respectfully point out that Treyz states, in the cited passage, that handheld computing device 12 may be used to provide the user with an opportunity to send and receive e-mail, telephone calls, voice mail, paging messages, data

service feeds, and any other suitable information or messages, and that such messages may include text, graphics, audio, and video.

Applicants have amended claim 10 to restrict the invention to a service response that includes executable code for allowing the client device to interact with the service. Treyz does not disclose or suggest a step of receiving a service response from a transmitter that includes executable code.

On page 5, with respect to claim 11, the Office Action states that Treyz teaches the method of claim 6 wherein the user reply is received at a point-of-presence (POP) (FIG. 14: Treyz discloses a communication network).

The shortcomings of claim 6, upon which claim 11 depends, have been set out previously and will not be repeated here. Applicants respectfully point out that Treyz, in FIG. 14, teaches away from Applicants' claimed invention in that Treyz depicts the handheld computing device communicating with local transmitter/receivers and not directly with the network where, the Office Action states, the POP is located. Applicants have amended claim 11 to make clear the communications path between the client device and the POP as set forth in FIG. 1A in Applicants' specification. Contrary to Treyz, Applicants, in amended claim 11, claim that the user reply is sent directly from the client device to a POP.

On page 5, with respect to claim 12, the Office Action states that Treyz teaches the method of claim 11 wherein the user reply is received over a personal digital assistant (PDA) interface providing electromechanical contact between the client device and the POP (col. 16, lines 16-22).

The shortcomings of claim 11, upon which claim 12 depends, have been set out previously and will not be repeated here. Applicants respectfully point out that Treyz states that handheld computing device 12 has a display, keys, and buttons that include a power button, navigation keys, and dedicated function buttons. Applicants cannot find, in the cited passage, a reference to a user reply that is received over a PDA interface providing electromechanical contact between the client device and the POP.

On page 5, with respect to claim 13, the Office Action states that Treyz teaches the method of claim 12 further comprising the step of receiving a service response from the POP, the

service response including executable code for allowing the client device to interact with the service (FIG. 19).

The shortcomings of claim 12, upon which claim 13 depends, have been set out previously and will not be repeated here. Applicants respectfully point out that Treyz depicts, in FIG. 19, handheld computing devices 12 in communicating with communications equipment that are in turn communicating with a communications network. Treyz also depicts a service provider that includes a server, where the service provider is in communication with the communications network. Treyz does not disclose or suggest Applicants' claimed service response that includes executable code for allowing the client device (the Office Action equates the client device to Treyz's handheld computing device) to interact with the service.

On page 7, with respect to claim 31, the Office Action states that Treyz teaches the method of claim 30 wherein the advertisement further comprises service information enabling a user of the client device to make a decision about the service provider, the decision being based on the service information; data entry information informing the user about utilizing a service offered by associated with the service provider; and contact information containing instructions for enabling the client device to communicate with the service provider (col. 28, lines 5-29).

The shortcomings of claim 30, upon which claim 31 depends, have been set out previously and will not be repeated here. Applicants respectfully point out that Treyz states, in the cited passage, that handheld computing device 12 may display a screen that may contain price, store, and product description information. Treyz further states that the user may use the handheld computing device to place an electronic order for the product by connecting to a web site that allows the user to order products offered for sale. In other words, Treyz displays a price, store, and product information, and relies on the user to connect to a web site to place an order.

Applicants have amended claim 29 to more distinctly point out that the steps of the method of claim 29 are performed by the executable code in the transmitter. In contrast to Treyz, Applicants claim, in claim 31, a method for utilizing executable code in a transmitter for providing an advertisement to a client device that includes service, data entry, and contact information, where the contact information contains instructions for enabling the client device to

communicate with the service provider. Nowhere does Treyz disclose formatting an advertisement by executable code in a transmitter that includes service, data entry, and contact information.

On page 8, with respect to claims 38 and 40, the Office Action states that Treyz teaches the method of claims 37 and 39 wherein the transmitter includes an emitter link layer, and the emitter link layer is compatible with the client device link layer (FIG. 15).

The shortcomings of claim 37, upon which claims 38-40 depend, have been set out previously and will not be repeated here. Applicants respectfully point out that Treyz depicts, in FIG. 15, several local wireless transmitter/receivers in communication with handheld computing device 12 and connected to merchant and kiosk computers. Nowhere does Treyz depict or describe Applicants' claimed transmitter including an emitter link layer, nor does Treyz describe Applicants' claimed compatibility between the emitter link layer in the transmitter and the client device link layer. As pointed out in *RF Protocol Design and Reconfigurable Logic Implementation for Low Power Applicants*, Alvarez et al., Facultad de Informatica UPV/EHU, (2003) "some commercial transceivers include the physical and Media Access Control layers, . . ." but "other transceivers need all the protocol layers". Without an explicit reference to an emitter link layer, or any protocol layer, Treyz is lacking in these aspect of Applicants' claimed invention.

On page 8, with respect to claims 41 and 42, the Office Action states that Treyz teaches the method of claims 40 and 41 wherein said the information about the service is displayed to the user if the client device is running a plug-in cooperatively associated with the service, and wherein the plug-in further comprises information about a preference of the user (col. 3, lines 62-67).

The shortcomings of claim 37, upon which claims 41 and 42 depend, have been set out previously and will not be repeated here. Applicants respectfully point out that Treyz states, in the cited passage, that audio files and image and video content may be downloaded to a handheld computing device from a kiosk. The Office Action is apparently stating that the downloading of files from a kiosk must require a plug-in associated with the kiosk and a plug-in having information about the preference of the user.

Applicants respectfully point out that a plug-in is only one way that functionality can be implemented on a handheld device, but not the only way. Further, Applicants respectfully point out that nowhere does Treyz disclose the use of plug-ins, not to conditionally display information about a service to the user, nor to provide information about the preference of a user, nor for any other reason. No other reference is provided to show this capability.

Since Treyz and Official Notice do not teach or suggest each and every element of Applicants' independent claim 1, and dependent claims 3, 4, 6, 7, 10-13, 20, 30, 31, 36-38, 40-42, (which depend upon independent claims 1, 19, 25, 29, and 35), and claims 5, 8, 9, 14-18, and 39 which depend therefrom, Applicants' independent claim 1, and dependent claims 3-18, 20, 30-31, and 36-42, are not made obvious by Treyz and Official Notice, and a rejection under 35 U.S.C. § 103(a) is inappropriate. Applicants assert that independent claim 1, and dependent claims 3-18, 20, 30-31, and 36-42, are now in condition for allowance. Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. § 103(a) with regards to independent claim 1, and dependent claims 3-18, 20, 30-31, and 36-42, for the reasons set forth above.

#### IV. REJECTION UNDER 35 U.S.C. § 102(e)

On pages 8-12, in paragraph 3, the Office Action states that claims 19, 22-29, 32-35, and 43-44 are rejected under 35 U.S.C. § 102(e) as being anticipated by Treyz. Applicants respectfully point out that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (CAFC, 1987), M.P.E.P. § 2131. As provided by the remarks set forth below, clearly this is not the case with the present rejection of the claims.

Applicants have amended independent claims 19, 25, and 35 to clarify that advertising information, including service, data entry, and contact information, is formatted and sent to the client device unsolicited. Applicants have amended claim 19 to clarify that a service prepares the unsolicited information and the transmitter receives the unsolicited information provided by the service. Applicants have amended claim 25 to clarify that the steps of claim 25 are

performed as a result of receiving an unsolicited broadcast message. Applicants have amended independent claim 29 to clarify that the executable code in the transmitter performs the steps of the method. Applicants have amended claim 35 to further define the invention in that the decoded unsolicited advertisement is related to user-specific data in the client device, and information related to the user-specific data is displayed by the client device.

In summary, Treyz does not anticipate Applicants' invention at least for the following reasons:

- (1) Applicants claim preparing unsolicited information by a service, receiving the unsolicited information in a transmitter, and formatting the information in the transmitter for conveying to a client device (amended claim 19).
- (2) Applicants claim receiving an unsolicited broadcast message having user-specific service information about a service from a service provider, and operating on the service object, including receiving user data into the service object and sending the user data to the service provider, all steps performed by the client device (amended claim 25).
- (3) Applicants claim receiving, formatting, and conveying an advertisement from a service provider about a service by executable code in a transmitter (amended claim 29).
- (4) Applicants claim receiving an unsolicited, formatted advertisement from a transmitter, decoding the unsolicited, formatted advertisement, and relating the decoded advertisement to user-specific data in the client device, all steps being performed by executable code in the client device (amended claim 35).
- (5) Applicants claim that the information about the service is displayed to the user if the client device is running a plug-in cooperatively associated with the

service, and that the plug-in includes information about a preference of the user (claims 41 and 42).

- (6) Applicants claim displaying the service provider data on a wearable device (claim 43).
- (7) Applicants claim receiving user data from eye movement (claim 43).

Treyz, on the contrary, states in many places that a service provider and a handheld computing device perform various functions with respect to the user, and that the transmitter enables communication between the service provider and the handheld device (col. 2, lines 15-27), but nowhere does Treyz disclose that the transmitter does any other further processing. Further, Treyz states in many places the functionality provided by the service provider, but nowhere does Treyz disclose or suggest that the service provider performs Applicants' claimed formatting advertising information from the advertisement, by the service provider. Treyz clearly states that the user must initiate any type of response to information from a service provider by invoking the service provider's web site. Nowhere does Treyz disclose that the client device relates user-specific information in the client device to advertising information received from the service provider.

On page 9, with respect to claim 19,

(1) The Office Action states that Treyz teaches a method for conveying information comprising the steps of preparing the information including service information indicating the purpose of the information (col. 9, line 2 – col. 10, line 190 (19?)).

Applicants respectfully point out that Treyz states, in the cited passage, that handheld computing device 12 may be used to place orders, obtain information on products and services, and display promotional materials. Treyz further states that service provider 24 may be used to provide information, process orders, etc.

Applicants have amended claim 19 further define the invention. Support for the amendments can be found in paragraph 18, for example. Treyz teaches away from Applicants'

claimed preparing unsolicited information including service information because Treyz states that the handheld computing device places orders and obtains information on products and services, in other words, the user of the handheld device of Treyz must initiate interactive sessions. Applicants, on the other hand, prepare information, unsolicited, that includes service information.

(2) The Office Action states that Treyz teaches a method for conveying information comprising the steps of preparing the information including data entry information indicating purchasing options based on the purpose; and contact information containing instructions for enabling the client device to communicate with the service (col. 28, lines 5-29).

Applicants respectfully point out that Treyz states, in the cited passage, that handheld computing device 12 may display a screen that may contain price, store, and product description information. Treyz further states that the user may use the handheld computing device to place an electronic order for the product by connecting to a web site that allows the user to order products offered for sale. In other words, Treyz displays a price, store, and product information, and relies on the user to connect to a web site to place an order.

In contrast to Treyz, Applicants claim preparing unsolicited information including data entry and contact information, where the contact information contains instructions for enabling the client device to communicate with the service provider. Nowhere does Treyz disclose preparing unsolicited information that includes data entry and contact information because Treyz requires the user to go to the web site to enter orders, which is the only interaction in the cited passage that relates to interaction with respect to the service.

(3) The Office Action states that Treyz teaches a method for conveying information comprising the steps of receiving the information from a service into a transmitter having a link layer, and conveying said the information from the transmitter to said the client device over a communication medium (col. 31, line 62 – col. 32, line 22).

Applicants respectfully point out that, in the cited passage, Treyz states that “[I]f the user selects option 342, handheld computing device 12 may display a screen” that “may contain information 348 on the desired item”. Treyz further states that “[A]n option such as an order



now option 352 may be associated with each retailer. If the user selects one of these options, the handheld computing device 12 may display the retailer's on-line shopping portal to the user". In other words, the user of the handheld device is requesting information about the "desired item" and displaying information to the user. When the user makes a selection, the handheld device is responding by performing the requested task.

Applicants respectfully point out that Treyz does not disclose, implicitly or explicitly, Applicants' claimed receiving unsolicited information from a service into a transmitter having a link layer. In the system of Treyz, the handheld device performs the functions that Applicants claim are performed in a transmitter. Further, the Office Action is silent on the presence of a link layer in the transmitter. The shortcomings of Treyz with respect to a link layer in the transmitter have been set forth above and will not be repeated here.

(4) The Office Action states that Treyz teaches a method for conveying information comprising the steps of formatting the information for transmission to a client device and operating within a context associated with the transmitter (FIG. 37).

Applicants respectfully point out that Treyz states that an illustrative screen 428 that may be provided by handheld computing device 12 when providing a shopping assistance service in a shopping mall environment is shown in FIG. 37 (col. 35, lines 21-25). Treyz further states that the shopping assistance service may be invoked by selecting an icon that may be automatically displayed by handheld computing device 12 when the user enters the mall. In other words, Treyz allows a user to select the shopping assistance service through a displayed icon. Treyz, however, does not disclose in the cited passage Applicants' claimed formatting unsolicited information in the transmitter for transmission to a client device operating within the context associated with the transmitter.

On page 10, with respect to claim 24, the Office Action states that Treyz teaches the method of claim 19 wherein the client device includes a client device physical layer and a client device link layer compatible with the link layer in the transmitter (col. 2, lines 12-15).

Applicants respectfully point out that Treyz states that the handheld computing device may communicate with a merchant over a wireless communications link. Nowhere does Treyz depict or describe Applicants' claimed transmitter including an emitter link layer, nor does Treyz describe Applicants' claimed compatibility between the emitter link layer in the transmitter and the client device link layer. As pointed out in *RF Protocol Design and Reconfigurable Logic Implementation for Low Power Applicants*, Alvarez et al., Facultad de Informatica UPV/EHU, (2003), "some commercial transceivers include the physical and Media Access Control layers, . . ." but "other transceivers need all the protocol layers". Without an explicit reference to an emitter link layer, or any protocol layer, Treyz is lacking in these aspect of Applicants' claimed invention.

On page 10, with respect to claim 25,

(1) The Office Action states that Treyz teaches a method for interacting with a service provider comprising the step of receiving a broadcast message having service information from a service provider (col. 9, line 2 – col. 10, line 19).

Applicants respectfully point out that Treyz states, in the cited passage, that handheld computing device 12 may be used to place orders, obtain information on products and services, and display promotional materials. Treyz further states that service provider 24 may be used to provide information, process orders, etc.

Treyz teaches away from Applicants' claimed receiving an unsolicited broadcast message having service information from a service provider because Treyz states that the service provider provides information in response to the orders placed by the handheld computing device. Broadcast messages do not require any sort of handshaking. Although Treyz does state that passive promotional material can be provided unidirectionally (col. 31, line 55), nowhere does Treyz disclose the use of broadcast messages by service providers.

(2) The Office Action states that Treyz teaches a method for interacting with a service provider comprising the steps of creating a service object from the service information and activating the service object (col. 30, line 5 – col. 31, line 65).

Applicants have amended claim 25 to further define the invention. In particular, Applicants have explicitly claimed that the service object is object-oriented. Support for this amendment can be found in Applicants' specification, paragraph 105. Treyz does not disclose such structures. Treyz, in the cited passage, states that information and services may be provided to the user from a variety of computers, and product ordering services may be provided using equipment in the store or using a remote order fulfillment facility (e.g., for orders to be delivered). Further, Treyz states that any suitable communications paths may be used to provide information and services to handheld computing device 12. Treyz still further states that advertisements and other promotional material may be displayed by handheld computing device 12, that promotional material may be passive or interactive, and that passive promotional material and other content may be provided using a unidirectional communications path or a bidirectional communications path. Nowhere, however, does Treyz disclose Applicants' claimed service objects created from service information. In fact, there is no detail provided about the structure of the software that implements the method of Treyz. Therefore, it is impermissible for the Office Action to assume that the structure includes Applicants' claimed service object.

(3) The Office Action states that Treyz teaches a method for interacting with a service provider comprising the step of receiving user data into the service object (col. 32, lines 5-55).

Applicants respectfully point out that nowhere does Treyz disclose a service object, as set forth above. Applicants further point out that Treyz states that screen 346 may contain information 350 on the identities of various on-line retailers and the handheld computing device 12 may display the retailer's on-line shopping portal to the user. Treyz further states that when the user is in the vicinity of store, the user may obtain product information and access services related to the products and services of the store and the manufacturers associated with these products and services through a local wireless link that may be used to provide the *requested* information wirelessly to handheld computing device 12 [emphasis added]. On the contrary, Applicants claim creating a service object from an unsolicited (not requested) broadcast message, and receiving user data into the service object. The cited passage and the structure of Treyz do not support the interpretation that Treyz anticipates Applicants' claimed method step because (a) Treyz states that the user of the handheld computing device requests information,

and because (b) an object-oriented structure cannot legitimately be assumed for Treyz without any evidence that Treyz is or can be constructed using an object-oriented methodology.

(4) The Office Action states that Treyz teaches a method for interacting with a service provider comprising the step of sending user data to the service provider (col. 10, line 5 – col. 11, line 65).

Applicants respectfully point out that Treyz states that handheld computing device 12 may be used to interact with many types of merchants, to place orders and to obtain information on the products and services offered by such merchants. However, as stated previously, nowhere does Treyz disclose Applicants' claimed sending user data to a service provider, where the service provider has sent an unsolicited broadcast message having service information that is associated the user data in a service object.

(5) The Office Action states that Treyz teaches a method for interacting with a service provider comprising the step of receiving service data required to utilize the service from the service provider and displaying the service provider data required to utilize the service (col. 31, line 66 – col. 32, line 22).

Applicants respectfully point out that, in the cited passage, Treyz states that “[I]f the user selects option 342, handheld computing device 12 may display a screen” that “may contain information 348 on the desired item”. Treyz further states that “[A]n option such as an order now option 352 may be associated with each retailer. If the user selects one of these options, the handheld computing device 12 may display the retailer's on-line shopping portal to the user”. In other words, the handheld device is requesting information about the “desired item” and displaying information to the user. When the user makes a selection, the handheld device is responding by performing the requested task.

Applicants respectfully point out that Treyz does not disclose Applicants' claimed receiving an unsolicited broadcast message from a service provider, sending user data associated with the broadcast message to the service provider, and receiving and displaying service provider data associated with the service provider and service, where the service provider data is required

to utilize the service. In the system of Treyz, the user must request information before any interaction can occur.

On page 11, with respect to claims 27 and 28, the Office Action states that Treyz teaches the method of claim 25 wherein the service provider data is displayed using a plug-in cooperatively associated with the service information, and wherein the plug-in further includes information about a preference of the user (col. 3, lines 62-67).

The shortcomings of Treyz with respect to claim 25 have been set forth above and will not be repeated here. Applicants respectfully point out that Treyz states, in the cited passage, that audio files and image and video content may be downloaded to a handheld computing device from a kiosk. The Office Action is apparently stating that the downloading of files from a kiosk must require a plug-in associated with the kiosk and a plug-in having information about the preference of the user.

Applicants respectfully reiterate that a plug-in is only one way that functionality can be implemented on a handheld device, but not the only way. Further, Applicants respectfully point out that nowhere does Treyz disclose the use of plug-ins, not to conditionally display information about a service to the user, nor to provide information about the preference of a user, nor for any other reason. Thus, Treyz cannot anticipate Applicants' claimed use of a plug-in cooperatively associated with the service information.

On page 11, with respect to claim 43, the Office Action states that Treyz teaches the method of claim 25 further comprising the steps of displaying the service provider data on a wearable device; and receiving user data from voice, fingers, or eye movement (col. 16, lines 37-55). Applicants have amended claim 43 to provide for receiving user data from eye movement.

The shortcomings of Treyz with respect to claim 25 have been set forth above and will not be repeated here. Applicants respectfully point out that Treyz states, in the cited passage, that the user may provide inputs using an on-screen keyboard, a keyboard, a touch screen, a touch pad, keys or buttons, a microphone, a pointing device, etc. Treyz does not disclose receiving Applicants' claimed displaying the service provider data on a wearable device, or receiving user data from eye movement.

On page 11, with respect to claim 44, the Office Action states that Treyz teaches the method of claim 25 further comprising the steps of displaying the service provider data on a device mounted in a vehicle; and receiving information pertaining to the location of the vehicle through an IR communication interface (col. 19, lines 4-17).

The shortcomings of Treyz with respect to claim 25 have been set forth above and will not be repeated here. Applicants respectfully point out that Treyz states, in the cited passage, that any suitable wireless communications link may be used to consummate the wireless transaction of step 162, which provides the user with the opportunity to use financial information in purchasing products and services in store or elsewhere (e.g. in transaction in amusement park, shopping mall, merchant, vending machine, etc. Treyz states that a local IR or RF communications path may be used. Elsewhere, Treyz states that an automobile computer can be used for the same purposes as a handheld computer (e.g. col. 48, line 47). Treyz also states in several places that GPS can be used to determine the location of the handheld computing device, but nowhere does Treyz disclose Applicants' claimed receiving information pertaining to the location of the vehicle through an IR communication interface. Determining the location of the vehicle is an affirmative action, and not one of the communications that Treyz describes.

On page 11, with respect to claim 29,

(1) the Office Action states that Treyz teaches a method of utilizing executable code in a transmitter for providing an advertisement to a client device said method comprising the steps of receiving the advertisement from a service provider about a service offered by said the service provider, and conveying the advertisement from the transmitter to the client device over a communication medium (col. 31, line 66 – col. 32, line 22).

Applicants have amended claim 29 to further clarify that the steps of the method are performed by the executable code in the transmitter. Support for this amendment can be found in the preamble of the claim. Applicants respectfully point out that, in the cited passage, Treyz states that “[I]f the user selects option 342, handheld computing device 12 may display a screen” that “may contain information 348 on the desired item”. Treyz further states that “[A]n option such as an order now option 352 may be associated with each retailer. If the user selects one of these options, the handheld computing device 12 may display the retailer's on-line shopping

portal to the user". In other words, the handheld device is requesting information about the "desired item" and displaying information to the user. When the user makes a selection, the handheld device is responding by performing the requested task.

Applicants respectfully point out that Treyz does not disclose or suggest Applicants' claimed receiving the advertisement by the executable code in the transmitter from a service provider about a service, nor Applicants' claimed conveying the advertisement by the executable code in the transmitter from the transmitter to the client device. In the system of Treyz, service information is requested by the handheld computing device (Applicants' client device) and supplied by the merchant (Applicants' service provider). Treyz does not disclose, either explicitly or inherently, a transmitter having executable code to receive the advertisement and convey the advertisement after formatting it.

(2) the Office Action states that Treyz teaches a method of utilizing executable code in a transmitter for providing an advertisement to a client device said method comprising the step of formatting the advertisement for transmission to the client device operating within a coverage area of the transmitter (col. 35, lines 21-41 and FIG. 37).

Applicants respectfully point out that Treyz states that an illustrative screen 428 that may be provided by handheld computing device 12 when providing a shopping assistance service in a shopping mall environment is shown in FIG. 37. Treyz further states that the shopping assistance service may be invoked by selecting an icon that may be automatically displayed by handheld computing device 12 when the user enters the mall. In other words, Treyz allows a user to select the shopping assistance service through a displayed icon. Treyz, however, does not disclose Applicants' claimed formatting the advertisement by the executable code in the transmitter for transmission to the client device within the coverage area of the transmitter.

On page 12, with respect to claim 34, the Office Action states that Treyz teaches the method of claim 33 wherein the diffuse infrared signal is generated by modulating an electric light (col. 12, line 56 – col. 13, line 9).

The shortcomings of Treyz with respect to claim 29, from which claims 30-33 depend, have been set forth above and will not be repeated here. Applicants respectfully point out that Treyz states, in the cited passage, that components of the system of Treyz may be interconnected

using any suitable wired or wireless communications paths: the Internet, packet-based, cable, fiber optics, optical, and radio-frequency. Although Treyz provides an extensive list of possibilities, Treyz does not include generating a diffuse infrared signal by moderating an electric light.

On page 12, with respect to claim 35,

(1) the Office Action states that Treyz teaches a method of utilizing executable code in a client device receiving an advertisement from a transmitter, said method comprising the step of an infrared communication signal conveyed from said the transmitter and arriving at a communication interface associated with the client device, the advertisement containing at least a portion of a service offered by a service provider (col. 9, line 2 – col. 10, line 19).

Applicants have amended claim 35 to further clarify that the advertisement is unsolicited and formatted by the transmitter.

Applicants respectfully point out that Treyz states, in the cited passage, that handheld computing device 12 may be used to place orders, obtain information on products and services, and display promotional materials. Treyz further states that service provider 24 may be used to provide information, process orders, etc.

Treyz teaches away from Applicants' claimed receiving an unsolicited, formatted advertisement from an infrared communication signal conveyed from the transmitter, wherein the transmitter formatted the advertisement, because Treyz states that the handheld computing device places orders and obtains information on products and services, in other words, the handheld device of Treyz initiates interactive sessions. Applicants, on the other hand, claim receiving an unsolicited, formatted advertisement.

(2) the Office Action states that Treyz teaches a method of utilizing executable code in a client device receiving an advertisement from a transmitter, said method comprising the steps of decoding the advertisement to extract information contained therein; processing the information; and displaying said information to a user of said the client device (col. 31, line 66 – col. 32, line 22).



Applicants respectfully point out that, in the cited passage, Treyz states that “[I]f the user selects option 342, handheld computing device 12 may display a screen” that “may contain information 348 on the desired item”. Treyz further states that “[A]n option such as an order now option 352 may be associated with each retailer. If the user selects one of these options, the handheld computing device 12 may display the retailer's on-line shopping portal to the user”. In other words, the handheld device is requesting information about the “desired item” and displaying information to the user. When the user makes a selection, Treyz states that the handheld device responds by performing the requested task.

Applicants respectfully point out that Treyz does not disclose or suggest Applicants' claimed executable code in the client device that receives and decodes formatted advertising information that was formatted by the transmitter.

Since Treyz does not anticipate each and every element of Applicants' independent claims 19, 25, 29, and 35, and dependent claims 21-24, 26-28, 30-34, and 36-45 which depend therefrom, Applicants' independent claims 19, 25, 29, and 35, and dependent claims 21-24, 26-28, 30-34, and 36-45 which depend therefrom, are not anticipated by Treyz, and a rejection under 35 U.S.C. § 102(e) is inappropriate. Applicants assert that independent claims 19, 25, 29, and 35, and dependent claims 21-24, 26-28, 30-34, and 36-45 which depend therefore, are now in condition for allowance. Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. § 102(e) with regards to independent claims 19, 25, 29, and 35, and dependent claims 21-24, 26-28, 30-34, and 36-45 which depend therefrom, for the reasons set forth above.

## V. CONCLUSION

Applicants respectfully request that this amendment be entered because it puts the present application in condition for immediate allowance, or, in the alternative, in a better form for appeal.

Amended claims 1, 3-20, and 22-46 are believed to be in condition for allowance. All dependent claims depend upon allowable independent claims, and are therefore also believed to be in condition for allowance.

Appl. No. 09/929,995  
Amdt. Dated, July 20, 2005  
Reply to Office Action of May 20, 2005  
Docket No.: 12078-142

Applicants have added one new independent claim. Applicants have include a check for \$250 in payment for an independent claim in excess of three and a claim in excess of 20. The Commissioner for Patents is authorized to charge additional fees or credit overpayment to Deposit Account No. 03-2410, Order No. 12078-142.

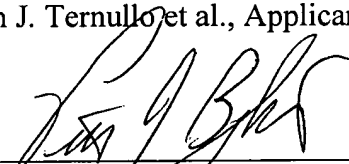
The following information is presented in the event that a call may be deemed desirable by the Examiner: Peter J. Borghetti (617) 854-4000

Respectfully submitted,

Noah J. Ternullo et al., Applicants

Date: July 20, 2005

By:

A handwritten signature in black ink, appearing to read 'Peter J. Borghetti', is written over a horizontal line.

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